

App. No. 09/809,639
Amendment Dated July 25, 2003
Reply to Office Action of February 27, 2003

SPECIFICATION AMENDMENTS

Page 3, line 16 to page 4, line 6, please replace with the following amended paragraph:

Briefly stated, the present invention provides a system and method by which a PCI device may be controlled by firmware in an Advanced Configuration and Power Management system. More specifically, the present invention enables a PCI BAR Operation Region through which PCI devices may be accessed. A device connected to the PCI bus is described in firmware with AML that declares a PCI BAR operation region associated with the PCI device. A generic driver is loaded and registers itself to handle any access to or from the PCI device ~~myby~~ means of the PCI BAR operation region. Essentially, the generic driver is enumerated as a functional driver (FDO) for the PCI device. When a Plug-n-Play manager assigns base addresses to each PCI device on the PCI bus, the generic driver stores this information. Calls by the firmware to the PCI BAR operation region identify the PCI BAR number (i.e., the PCI device) and give an offset. The generic driver resolves that information into an absolute memory or I/O address based on the current BAR assigned by the PnP manager and performs the requested access.

Page 12, lines 8-23, please replace with the following amended paragraph:

The hardware device 241 may be any hardware device connected to the PCI bus and which is intended to be kept under firmware control. Common examples may be a thermal sensor, a memory controller, or an ASIC that controls the brightness of the LCD screen of a laptop. Other examples will become readily apparent to those skilled in the art. In this particular embodiment, the ACPI BIOS ~~222~~ 220 includes at least one definition block (i.e., PCI BAR Definition Block or "PBAR" 251) that describes the hardware device 241 and declares a PCI BAR operation region in connection with the hardware device 241. The construction and use of the PCI BAR operation region is described in detail later in connection with Figure 3. At this point, it is sufficient to note that early during the boot process (i.e., prior to loading many other device drivers), the ACPI tables 222 are created in the ACPI namespace 207 from definition blocks stored in the ACPI BIOS 220, including the PBAR 251 that creates a PCI BAR operation region in connection with the PCI device 241.